THE CLAIMS

What is claimed is:

5   1.   A method for managing contract bidding of chemical synthesis on a computer network, the method comprising the steps of:

receiving a customer's request for quotation for synthesis of a chemical structure;

evaluating potential suppliers based upon at least one factor provided by the

10   customer;

identifying eligible suppliers for bidding on the synthesis;

releasing the request for quotation to eligible suppliers;

receiving bids from eligible suppliers;

evaluating the bids and providing the customer with a list of qualified

15   suppliers; and

receiving a customer's choice of qualified supplier for the synthesis.

2.   The method of claim 1, wherein the at least one factor is selected from delivery timing, cost, product yield, level of confidentiality, level of quality control,

20   purity, stereochemical requirements, and synthesis reaction steps.

3.   The method of claim 2, wherein the synthesis reaction steps include at least one synthesis route.

25   4.   The method of claim 3, wherein the synthesis route is determined with at least one route factor selected from yield percent, number of steps to commercially available starting materials, number of purification steps, and cost per unit mass of product.

5.   The method of claim 1, wherein the list of qualified suppliers is

30   generated by weighting the at least one factor and obtaining a best fit to sets of qualifications of the potential suppliers.

6.   The method of claim 5, wherein the sets of qualifications of the potential suppliers include at least one of delivery timing, cost, product yield, level of

35   confidentiality, level of quality control, purity, stereochemical requirements, and synthesis reaction steps.

7. The method of claim 1, wherein the releasing step occurs over the internet.

8. The method of claim 1, further including the step of establishing a binding contract between the customer and the customer's choice of qualified supplier.

9. The method of claim 1, wherein the chemical structure is a family of compounds.

10. A computerized system for managing contract bidding of chemical synthesis on a communications or computer network, the system including means for processing requests for proposals for synthesis of a chemical structure, means for weighting synthesis factors supplied by a customer, means for identifying potential suppliers, means for distributing the requests for proposals and soliciting bids on each request for proposals, and means for identifying appropriate suppliers for the synthesis.

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